## 510(K) SUMMARY

A. Submitter Information

DePuy Spine, Inc.

325 Paramount Drive

Raynham, MA 02767

Contact Person:

Daphney Germain-Kolawole

Regulatory Affairs Associate

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B. Date Prepared

6/3/2011

C. Device Class

Class III

D. Device Name

Trade/Proprietary Name:

**VIPER Systems** 

Common/Usual Name:

Pedicle Screw Spinal System

Classification Name:

Spinal interlaminar fixation orthosis

per 21 CFR §888.3050

Pedicle screw spinal fixation

per 21 CFR §888.3070

Classification Panel:

Orthopaedics

FDA Panel Number:

87

E. Product Code(s)

NKB, MNI, MNH, KWP

K111571

#### F. Predicate Device Name

Trade name: DePuy Spine EXPEDIUM®/VIPER® Spine System (K073562)

DePuy Spine EXPEDIUM® Spine System (K070387)
DePuy Spine EXPEDIUM® Spine System (K080313)
DePuy Spine EXPEDIUM® Spine System (K102249)
DePuy Spine MOSS MIAMI Spine System (K011182)

#### G. Device Description

The VIPER Systems are 5.5mm rod systems offered in both titanium and stainless steel materials. The systems consist of monoaxial screws, polyaxial screws, uni-planar screws, and extended tab implants. They are available in various geometries and sizes to accommodate patient anatomy. The VIPER Systems 8mm to 12mm diameter favored angle polyaxial screws are not intended to be used with the VIPER PEEK rods.

#### H. Intended Use

The VIPER Systems are intended to provide immobilization and stabilization of spinal segments in skeletally mature patients as an adjunct to fusion in the treatment of acute and chronic instabilities or deformities of the thoracic, lumbar and sacral spine.

The VIPER Systems metallic components are intended for noncervical pedicle fixation and nonpedicle fixation for fusion for the following indications: degenerative disc disease (defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies); spondylolisthesis; trauma (i.e., fracture or dislocation); spinal stenosis; curvatures (i.e., scoliosis, kyphosis, and/or lordosis); tumor, pseudoarthrosis; and failed previous fusion in skeletally mature patients.

When used in a posterior percutaneous approach with MIS instrumentation, the VIPER Systems metallic components are intended for noncervical pedicle fixation and nonpedicle fixation for fusion for the following indications: degenerative disc disease (defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies); spondylolisthesis; trauma (i.e., fracture or dislocation); spinal stenosis; curvatures (i.e., scoliosis, kyphosis, and/or

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lordosis); tumor, pseudarthrosis; and failed previous fusion in skeletally mature patients.

The VIPER PEEK rods are only indicated for fusion procedures for spinal stenosis with instability (no greater than Grade I spondylolisthesis) from L1-S1 in skeletally mature patients.

# I. Summary of Similarities and Differences in Technological Characteristics, Performance and Intended Use

The proposed modifications to the DePuy Spine VIPER® Systems are identical to the predicate devices except for the addition of favored angle polyaxial screws in various sizes to the systems. The design, materials, and technology remain identical to the predicate systems.

#### J. Materials

Manufactured from ASTM F 138 implant grade stainless steel, ASTM F 139 implant grade stainless steel, and ASTM F 136 implant grade titanium alloy.

#### K. Performance Data

Performance data per ASTM F 1798 were submitted to characterize the subject VIPER Systems components addressed in this notification. Specifically, static and dynamic cantilever beam testing as well as static axial slip testing were performed.

#### L. Conclusion

Both the Performance Testing and Substantial Equivalence Justification demonstrate that the device is as safe, as effective, and performs as well as the predicate device.

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#### **DEPARTMENT OF HEALTH & HUMAN SERVICES**



Food and Drug Administration 10903 New Hampshire Avenue Document Control Room –WO66-G609 Silver Spring, MD 20993-0002

JUL - 6 2011

DePuy Spine, Inc. % Ms. Daphney Germain-Kolawole Regulatory Affairs Associate 325 Paramount Drive Raynham, Massachusetts 02767

Re: K111571

Trade/Device Name: VIPER® Systems Regulation Number: 21 CFR 888.3070

Regulation Name: Pedicle screw spinal system

Regulatory Class: III

Product Code: NKB, MNH, MNI, KWP

Dated: June 03, 2011 Received: June 06, 2011

Dear Ms. Germain-Kolawole:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21

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CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to <a href="http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm">http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm</a> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to

http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <a href="http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm">http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm</a>.

Sincerely yours.

for Mark N. Melkerson

Director Division of Surgical, Orthopedic and Restorative Devices
Office of Device Evaluation

Center for Devices and Radiological Health

Enclosure

## INDICATIONS FOR USE STATEMENT

510(k) Number (if known): KIII5	7
Device Name: VIPER® Systems	
Indications For Use:	•
The VIPER Systems are intended to provide segments in skeletally mature patients as an a and chronic instabilities or deformities of the	djunct to fusion in the treatment of acute
The VIPER Systems metallic components are intended for noncervical pedicle fixation and nonpedicle fixation for fusion for the following indications: degenerative disc disease (defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies); spondylolisthesis; trauma (i.e., fracture or dislocation); spinal stenosis; curvatures (i.e., scoliosis, kyphosis, and/or lordosis); tumor, pseudoarthrosis; and failed previous fusion in skeletally mature patients.	
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Prescription UseX AND/OR	Over-The-Counter Use
Part 21 CFR 801 Subpart D)	(21 CFR 807 Subpart C)
PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)	
Concurrence of CDRH, Office of Device Evaluation (ODF)	
	Division of Surgical, Orthopedic, and Restorative Devices
	., mm.1

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DePuy Spine, Inc., a Johnson & Johnson Company